Appendix A

(i) Amendments
in marked-up form to
Claims 56, 66, 70 and 74,

(ii) New Claims 92 and 93, and

(iii) Status of all other claims

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1. (previously presented) A process for improving the field emission of an electron field emitter comprised of an acicular emitting substance, comprising:

(a) attaching particles of an acicular emitting substance to a substrate to form said electron field emitter;

(b) contacting a material with said electron field emitter, wherein said material forms an adhesive contact with said electron field emitter and said adhesive contact provides sufficient adhesive force when said material is separated from said electron field emitter so that a portion of said electron field emitter is removed or rearranged thereby forming a new surface of said electron field emitter; and

(c) separating said material from said electron field emitter.

2. (previously presented) The process of Claim 1 wherein, when said material is separated from said electron field emitter, a portion of said electron field emitter is removed.

3. (original) The process of Claim 2 wherein said acicular emitting substance is acicular carbon.

4. (original) The process of Claim 3 wherein said acicular carbon is comprised of carbon nanotubes.

5. (original) The process of Claim 4 wherein said carbon nanotubes are single wall carbon nanotubes.

6. (original) The process of Claim 5 wherein said single wall carbon nanotubes are laser ablation grown single wall carbon nanotubes.

7. (previously presented) The process of Claim 3 wherein said acicular carbon is comprised of carbon fibers grown from the catalytical decomposition of carbon-containing gases over small metal particles, each of which said fibers has graphene platelets arranged at an angle with respect to the fiber axis so that the periphery of said carbon fiber consists essentially of the edges of said graphene platelets.

8. (original) The process of Claim 5, wherein said carbon nanotubes are less than about 9 wt % of the total weight of said electron field emitter.

9. (original) The process of Claim 5, wherein said carbon nanotubes are less than about 5 wt % of the total weight of said electron field emitter.

10. (original) The process of Claim 5, wherein said carbon nanotubes are less than about 1 wt % of the total weight of said electron field emitter.

11. (original) The process of Claim 5, wherein said carbon nanotubes are about 0.1 wt % to about 2 wt % of the total weight of said electron field emitter.

12~53. (canceled)

54. (previously presented) The process of Claim 1 wherein the electron field emitter is rearranged, and little or none of the electron field emitter is removed.

55. (previously presented) The process of Claim 4 wherein said carbon nanotubes are multiwall carbon nanotubes.

56. (currently amended) The process of Claim ~~5~~4 wherein said carbon nanotubes comprise single wall carbon nanotubes and multiwall carbon nanotubes.

57~59. (canceled)

60. (previously presented) A process for improving the field emission of an electron field emitter comprised of an acicular emitting substance, comprising:

(a) attaching particles of an acicular emitting substance to a substrate to form said electron field emitter;

(b) contacting a material with said electron field emitter, wherein said material forms an adhesive contact with said electron field emitter, wherein there is no translational motion by said material with respect to the electron field emitter, and wherein said adhesive contact provides sufficient adhesive force when said material is separated from said electron field emitter so that a portion of said electron field emitter is removed or rearranged thereby forming a new surface of said electron field emitter; and

(c) separating said material from said electron field emitter.

61. (previously presented) A process for improving the field emission of an electron field emitter comprised of an acicular emitting substance, comprising:

(a) attaching particles of an acicular emitting substance to a substrate to form said electron field emitter;

(b) contacting a liquid material with said electron field emitter, wherein said material forms an adhesive contact with said electron field emitter, and said adhesive contact provides sufficient adhesive force when said material is separated from said electron field emitter so that a portion of said electron field emitter is removed or rearranged thereby forming a new surface of said electron field emitter; and

(c) separating said material from said electron field emitter.

62. (previously presented) A process for improving the field emission of an electron field emitter comprised of an acicular emitting substance, comprising:

(a) attaching particles of an acicular emitting substance to a substrate to form said electron field emitter;

(b) contacting a material with said electron field emitter before said electron field emitter is fired, wherein said material forms an adhesive contact with said electron field emitter, and said adhesive contact provides sufficient adhesive force when said material is separated from said electron field emitter so that a portion of said electron field emitter is removed or rearranged thereby forming a new surface of said electron field emitter; and

(c) separating said material from said electron field emitter.

63. (previously presented) A process for improving the field emission of an electron field emitter comprised of an acicular emitting substance, consisting essentially of:

(a) attaching particles of an acicular emitting substance to a substrate to form said electron field emitter;

(b) contacting a material with said electron field emitter, wherein said material forms an adhesive contact with said electron field emitter, and said adhesive contact provides sufficient adhesive force when said material is separated from said electron field emitter so that a portion of said electron field

emitter is removed or rearranged thereby forming a new surface of said electron field emitter; and

(c) separating said material from said electron field emitter.

64~65. (canceled)

66. (currently amended) In the fabrication of a filed emission triode, a completely screen printed field emission triode or a lighting device that comprises an electron field emitters comprised of an acicular emitting substance, a process for improving the field emission of the electron field emitter comprising:

(a) attaching particles of an acicular emitting substance to a substrate to form said electron field emitter;

(b) contacting a material with said electron field emitter, wherein said material forms an adhesive contact with said electron field emitter and said adhesive contact provides sufficient adhesive force when said material is separated from said electron field emitter so that a portion of said electron field emitter is removed or rearranged thereby forming a new surface of said electron field emitter; and

(c) separating said material from said electron field emitter.

67~68. (canceled)

69. (previously presented) The process of Claim 60, 61, 62, 63 or 66 wherein, when said material is separated from said electron field emitter, a portion of said electron field emitter is removed.

70. (currently amended) The process of any one of Claims 60~6863 or 66 wherein said acicular emitting substance is carbon nanotubes.

71. (previously presented) The process of Claim 70 wherein said carbon nanotubes are single wall carbon nanotubes.

72. (previously presented) The process of Claim 71 wherein said single wall carbon nanotubes are laser ablation grown single wall carbon nanotubes.

73. (previously presented) The process of Claim 70 wherein said carbon nanotubes are multiwall carbon nanotubes.

74. (currently amended) The process of Claim ~~71 further comprising~~ 70 wherein the carbon nanotubes are single wall carbon nanotubes and multiwall carbon nanotubes.

75. (previously presented) The process of Claim 70 wherein said carbon nanotubes are less than about 9 wt % of the total weight of said electron field emitter.

76. (previously presented) The process of Claim 1, 60, 62, 63 or 66 wherein the material is applied in liquid form.

77. (previously presented) The process of Claim 61 wherein the material is applied in liquid form and is heated.

78. (previously presented) The process of Claim 76 wherein the material is applied in liquid form and is heated.

79. (previously presented) The process of Claim 1, 60, 61, 62, 63 or 66 wherein the material is thermally softened polymer film.

80. (previously presented) The process of Claim 79 wherein the material is selected from the group consisting of an acrylic film, an ethylene/acrylic elastomer film, a block copolymer film and an ionomer film.

81. (canceled)

82. (previously presented) A process for improving emission current density of a carbon nanotube electron field emitter, said process comprising the steps of:

(a) forming a carbon nanotube layer by screen-printing a carbon nanotube paste through a patterned screen onto a substrate, wherein a plurality of conductive pattern is formed thereon so as to form a field emission display device;

(b) performing a drying process to said substrate;

(c) performing a firing process; and

(d) performing a taping process.

83~91. (canceled)

92. (new) The process of Claim 60, 61, 62, 63 or 66 wherein the electron field emitter is rearranged, and little or none of the electron field emitter is removed.

93. (new) The process of Claim 60, 61, 62, 63 or 66 wherein the acicular emitting substance comprises carbon fibers grown from the catalytical decomposition of carbon-containing gases over small metal particles, each of which said fibers has graphene platelets arranged at an angle with respect to the fiber axis so that the periphery of said carbon fiber consists essentially of the edges of said graphene platelets.